Cal/EPA Environmental Justice Action Plan

DPR Pilot Project Update for
Air Monitoring in Parlier

October 13, 2005

I. Lead Agency: Department of Pesticide Regulation (DPR)

II. Project Area: The community of Parlier, Fresno County.

Area Demographics: See information below on Page 2, under "Site Selection." For a more detailed examination of the demographics of Parlier and other communities considered for this project, please refer to the briefing paper on DPR's Environmental Justice Web site, www.cdpr.ca.gov/docs/envjust/pilot_proj/index.htm

III. Project Start Date: Spring 2005

IV. Project Summary: The project will focus on monitoring and evaluating ambient air concentrations of as many as 40 pesticides and breakdown products. The data gathered will help us evaluate ambient air exposure to pesticides in order to better understand and identify opportunities to reduce environmental health risk, particularly to children. (For more details on the pilot project, see the summary and background at www.cdpr.ca.gov/docs/envjust//pilot_proj/index.htm.) The Parlier project will include assessment of cumulative impacts, application of precautionary approaches, and public participation.

V. Project Status: DPR formed a Local Advisory Group (LAG) in early May after soliciting applications in March and April. The 15-member LAG, which met monthly between June and September and will start meeting again in January, includes representatives of local and regional EJ and community groups, as well as local business and farming representatives. The meetings have been well-attended both by LAG members and a usual audience of 20-30 people, mainly representatives of EJ groups and agricultural and chemical industries. From the outset, the LAG has been very active, developing ground rules for its meetings; adding to the original project objectives; advising on the pesticides to be monitored, as well as sampling locations and frequency; reviewing the pilot project protocol; and discussing health screening levels and related projects. The group is working with DPR on a community open house to be held in January on the pilot project. Documents related to the project, including meeting agendas, handouts, and minutes, are available on DPR's Website and many have been translated into Spanish.

DPR also formed a Technical Advisory Group (TAG) of scientists and technical experts from government agencies, universities, private industry, and an EJ organization to offer guidance on the scientific elements of the project. Since June, the TAG has met monthly; in August, members attended a LAG meeting as well.

Following discussions with the LAG and TAG, DPR selected 25 pesticides and five pesticide breakdown products for monitoring in a single multi-residue method. The LAG recommended methyl isothiocyanate (MITC) from choices presented to them by DPR for monitoring a single

chemical not detectable with the multiresidue method. The pesticides were selected based on toxicity, volatility, amount of use, and availability of sampling and laboratory methods. In addition, the Air Resources Board (ARB) has become a major partner in the project by setting up a full instrument shelter in Parlier and collecting all the air samples typical of a monitoring site for air toxics, including nine additional pesticides. The ARB will provide the results of this monitoring to DPR.

DPR typically locates its sampling equipment on the roofs of schools or other public buildings near agricultural fields. Such facilities allow the equipment to be accessible to staff yet secure from loss or tampering; close to populated areas; and near the sources of agricultural pesticide applications. In Parlier, DPR will conduct its pesticide monitoring at three elementary schools -- Martinez, Chavez, and Benavidez, and the ARB will locate its monitoring trailer at Benavidez. Locating the equipment at schools takes on special significance since the main purpose of all the pilot projects is to reduce risk to children. DPR will take samples three days a week, 24 hours a day, for 52 weeks at each school site. DPR will vary the three days each week. ARB staff will collect their air samples of 24 hours in duration every six days, and during peak months of use, every three days.

Future Activities: The monitoring results will be evaluated to determine the exposure and risk from individual as well as multiple pesticides. The data will be compared to historical monitoring results from other areas and to health screening levels. DPR will also evaluate the results and pesticide use patterns at the time of monitoring to determine possible mitigation measures, as well as other potential areas and time periods for future monitoring. If analysis shows a significant health concern with a pesticide under normal use, DPR may take regulatory measures based on scientific evaluations and recommendations. The response could consist of one or more of the following: permit conditions for restricted pesticides (for example, buffer zones); requiring additional data from pesticide makers to better define problem and solution; statewide regulations, label changes; cancellation of a product registration.

VI. Challenges: DPR monitoring was to begin in October 2005. With concurrence of the LAG and the TAG, DPR is delaying the start of sampling until January, to accommodate the LAG's recommendation to maximize the number of samples and collection sites. Spreading the cost of the project over two fiscal years will ease resource constraints. The revised schedule shows collection of field samples from January to December 2006; data analysis from March 2006 to August 2007; progress reports in April 2006, October 2006, and April 2007; and the final report to be released in October 2007.

VII. Addressing Cumulative Impacts: DPR will analyze potential cumulative impacts of detected pesticides using a hazard index approach. In addition, DPR will assemble other available multi-media data on pesticides in water and other media, and data on other pollutants and stressors, for a cumulative impacts analysis using guidance being developed by Cal/EPA's Office of Environmental Health Hazard Assessment for all Cal/EPA pilot projects.

VIII. Addressing Precautionary Approach: DPR's initial effort is an alternative analysis now being conducted by the Department's Pest Management Analysis and Planning Program. It will study cropping patterns, pest pressures, pest control practices, pesticide use, application methods, and

alternative pest management techniques, with a focus on integrated pest management. Additional opportunities for exploring the precautionary approach will present themselves as the data is collected.

IX. Original Proposed Project End Date: Summer 2006 (data collection ends); early 2007 (release of evaluative report).

X. Revised Project End Date & Explanation for Delay in Timeline: December 2006 (data collection ends); October 2007 (release of evaluative report). DPR monitoring was to begin in October 2005. With concurrence of the LAG and the TAG, DPR is delaying the start of sampling until January, to accommodate the LAG's recommendation to maximize the number of samples and collection sites. Spreading the cost of the project over two fiscal years will ease resource constraints. The revised schedule shows collection of field samples from January to December 2006; data analysis from March 2006 to August 2007; progress reports in April 2006, October 2006, and April 2007; and the final report to be released in October 2007.

XI. For More Information
Please direct comments & questions to:

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